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ABSTRACT

This study explored the effects of professional development experiences, based on Morin's (1990, 1994) theoretical model, on teachers' abilities to implement planned educational change. It focused on one elementary school's initiative, Project Learn, which emphasized cooperative planning for change, preparing for planned change, and operationalizing and maintaining planned change. The study tracked the reforming practices of nine elementary teachers as they participated in the first year of a 2-year set of professional development experiences designed to support their efforts to improve curriculum and instruction for at-risk students. Data collection involved teacher interviews, small group discussions, observations, field notes, and archival documents. Results indicated that the school staff and principal successfully made progress toward changing their visions about Project Learn into a school reality. The success of the planned change depended on providing teachers with opportunities to learn under the guidance of school leaders who could offer optimal conditions for facilitating and sustaining professional change. Data collection tools are appended. Keys to success included shared vision for school change, professional collaboration, and administrative and financial support. Effective strategies included teacher-driven inservices with follow-up and links to curriculum, team curriculum planning, and hosting of student teachers. (Contains 50 references.) (SM)

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The Effects of Professional Development on Teachers' Abilities to Implement Planned Educational Change in the Context of Sherwood School's Project Learn

A REPORT ON YEAR ONE OF THE STUDY

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June 1998

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Running Head: PROFESSIONAL DEVELOPMENT

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Abstract

The purpose of this study was to explore the effects of professional development experiences based on the theoretical model developed by Morin (1990, 1994) on teacher's abilities to implement planned educational change in the context of Sherwood School's Project Learn. The study focussed on tracking the reforming practices of nine elementary teachers as they participated in the first year of a two-year long set of professional development experiences designed to support their efforts to improve curriculum and instruction for 132 at-risk students. Non-obtrusive data collection techniques were used to provide multiple perspectives (teacher interviews, audio-recording, field notes, collection of archival documents from the site). The data analysis process was designed to continue the search for important precepts about the role of professional development in planned educational change. This led to further refinement of the model and contributions to the teacher education and education reform literature.

The Effects of Professional Development on Teachers' Abilities to Implement Planned Educational Change in the Context of Sherwood School's Project Learn[1]

During the twentieth century the field of education has moved in and out of periods during which there has been considerable concern for improving K-12 schooling across all learning domains in Canadian education. Over the years, government officials, parents, and educators have used a variety of written and verbal forums to outline reform initiatives aimed at improving curriculum and instruction in public schools (For example, see Gaff, 1995; Manitoba Education and Training, 1995). Within this larger context, reform in elementary education has been driven by a dissatisfaction with traditional practice and a desire to move towards an improved future. The thrust of much dialogue in the profession suggests, however, that change is and has been difficult to realize at the classroom level (Ungerleider, 1993).

Immediate improvement and change can only be implemented by in-service teachers who are in frequent contact with large numbers of students. It is for this reason that professional development, or the continuing education of teachers, is that level of teacher education that tends to take on the burden of sustaining and shaping change in the schools. Professional development is considered by many authorities in the field of education to be the most crucial element in the reformation and continual improvement of curriculum and instruction (Birch & Elliot, 1993; Brown, 1995; McLaren, 1994; Shroyer, 1990). Professional development experts Michael Fullan and Suzanne Stiegelbauer (1991) substantiate the point:

> As long as there is the need for improvement, namely, forever, there will be the need for professional development. Problems of teaching in modern society are getting more complex. In-built professional development... is **the** premier strategy for coping with this

growing complexity. (p.344)

It has been suggested that one of the greatest challenges in educational reform is helping classroom teachers grow and change. Reports put forward by the Holmes Group (1986, 1990), Carnegie Task Force on Teaching as a Profession (1986), and the National Commission for Excellence in Teacher Education (1985) confirm this point and hint that present mechanisms for our professional work with teachers might be weak.

Scholars and researchers now recognize that the failure of many curriculum reform efforts may in part be due to the ineffectiveness of the professional development models employed rather than teachers' resistance to change. One-shot workshops, training without technical assistance or follow-up, top-down plans, courses unrelated to classroom experiences, diffusion of products, lack of attention to teacher perceived needs, and so on have had little impact because they are not designed to provide the conditions for professional change (Birch & Elliot, 1993; Clark, 1992; Evertson, Hawley, Zlotnik, 1992; Hawley & Valli, 1997; Thiessen, 1992). Knowledge of educational change and adult learning have been identified as critical but neglected foundational groundings for the professional development of teachers (Fullan, 1993, Fullan & Stieglbauer; Ryan, 1994).

Purpose

The education literature is saturated with pedagogical learning theories aimed at helping children grow and change, but lacks theoretical models for working in parallel ways with teacher-learners. This realization led to a study conducted by Morin (1990, 1994) which resulted in the construction of a three-component, professional development model for planned change in education which was based on knowledge of educational change, adult learning, and the experience of past

professional development practice. In keeping with a systems theory perspective of exploration (Patton, 1990), the research provided a challenge not only to suggest how teachers and educational change might be related, but also to indicate under what conditions and through what processes these changes might be accomplished. Since the proposed model had not yet been tried empirically, the most imperative need for further research was field testing.

The purpose of this study will be to explore the effects of professional development experiences based on the theoretical model developed by Morin (1990, 1994) on teachers' abilities to implement planned educational change in the context of Sherwood School's Project Learn. Key probe questions include: a) How is Sherwood School's Project Learn an instance of planned educational change? b) To what extent have the Sherwood staff been provided with meaningful in-services? c) What factors contributed to positive teacher change?; d) What evidence can be provided to suggest that Project Learn is being successfully implemented in the school? e) What factors are inhibiting teachers from changing?; f) What are the most promising features of the model? and g) How can the model be further refined?

Method

An exploration of such phenomenon as the role of professional development in planned educational change requires the use of qualitative research methods which are relatively open-ended and flexible (Krathwohl, 1993; Lancy, 1993; Marshall & Rossman, 1989). Comprehensive discussions of the characteristics, criteria of quality, advantages and disadvantages of qualitative research are given elsewhere (Landenbach, Vaughn & Aagaard, 1994). Special mention should be made about the descriptive and interpretive nature of the study (Erickson, 1986) as well as the inclusion of the insiders' or "emic" perspectives (Bresler, 1995).

The investigation can be defined as an instance of case study research which is the method of choice for studying educational change projects such as "Project Learn." According to Yin (1984), the case study is unique in that it serves to explain, describe, and explore the complexities of real-life contexts. Typically, case studies probe deeply and analyse intensively an individual unit "with a view to establishing generalizations about the wider population to which that unit belongs" (Cohen & Manion, 1994, p. 106-107). In this study, the unit is a change project, one among a plethora of others in the field of education.

The site for the study was Sherwood Elementary School, selected because it met the major criterion of initiating a school-based educational change project. The subjects of the study were the nine elementary educators that made up the teaching staff of the school. The study focussed on tracking the reforming practice of the nine subject teachers as they participated in the first year of a two-year long set of professional development experiences designed to support their efforts to improve curriculum and instruction for their 136 students, about 30% of which are considered "at-risk." The "experimental" program of professional development experiences was based on the theoretical model developed by Morin (1990, 1994). The study was conducted in the natural setting in which the teachers work, Sherwood School. Data was collected and will continue to be collected over a period of two years which commenced in January 1997.

Tools designed by the researcher for data collection appear in Appendix A. Non-obtrusive data collection techniques were used to provide multiple perspectives:

1. School planning meetings were conducted and scribed on a weekly basis.
2. Classroom observations and schools tours were conducted twice during the first year of the two-year study period (Spring 1997 and Winter 1998). These were documented via note

taking, verbatim description of events, and photography.

3. In the first year of the project, semi-structured interviews of about one-hour in duration were conducted and audio-recorded with all teachers observed and the school principal.

4. Additional documentary data were analysed and collected in the form of PD reaction forms, school newsletters, and the researcher's field notes.

The data analysis process was designed to continue the search for important precepts about the role of professional development in helping teachers change, which in turn, led to further refinement of the model. The approach used was based upon analytic induction (Goetz & LeCompte, 1981) and the constant-comparative method (Glaser & Strauss, 1967), both suggested techniques for case studies using more than one data source. In short, data were reviewed, interpreted, and coded as an ongoing process throughout the data collection period. Triangulation, or examining the phenomenon from more than one viewpoint, was used to furnish evidence of positive change and help confirm the findings in the study (Landenbach, Vaughn, Aagaard, 1994). The research procedures can be summarized as follows:

1. A specific unit was identified as a focus for the case study.
2. A systematic search was begun for data sources and important questions.
3. Initial project plans were implemented and data collected, reviewed, and categorized thematically.
4. A working structure for the organization of findings was developed.
5. Project plans continued to be implemented and the data collection expanded to explore refined thematic categories and questions more fully.
6. The questions, data categories, and working structure were constantly held up to the

data collection for revision and amplification when necessary.

7. Data were reduced and key concepts were extracted which served to explain and describe the phenomenon under study.

8. Central themes emerged and served as natural organizers for structuring the final presentation of findings.

Results and Discussion

The Project Learn strategy for change involved the application of a theoretical model of professional development consisting of three components: 1) Cooperative Planning for Change; 2) Preparing for Planned Change; and 3) Operationalizing and Maintaining Planned Change. The components and the elements within each represent stages and sequence in the change process. Before discussing the application of each component separately, a composite illustration of the entire model is presented in Figure 1.

The model components incorporate central features that are consistently associated with the potential for successful educational and teacher change such as self-directed learning, individual and group introspection, continuous professional interaction, a well-defined knowledge base, developmental experiences, participation in curriculum development, classroom-based trials, adequate support and resources, and ongoing feedback. The discussion of the application of the model further identifies factors having impact on planned change and draws attention to ways in which these factors can operate positively within professional development programs.

Component 1: Cooperative Planning for Change

Initial steps in the model being applied suggested that leaders of planned change efforts in schools should begin with: 1) an analysis of the target group - that group of teacher-learners

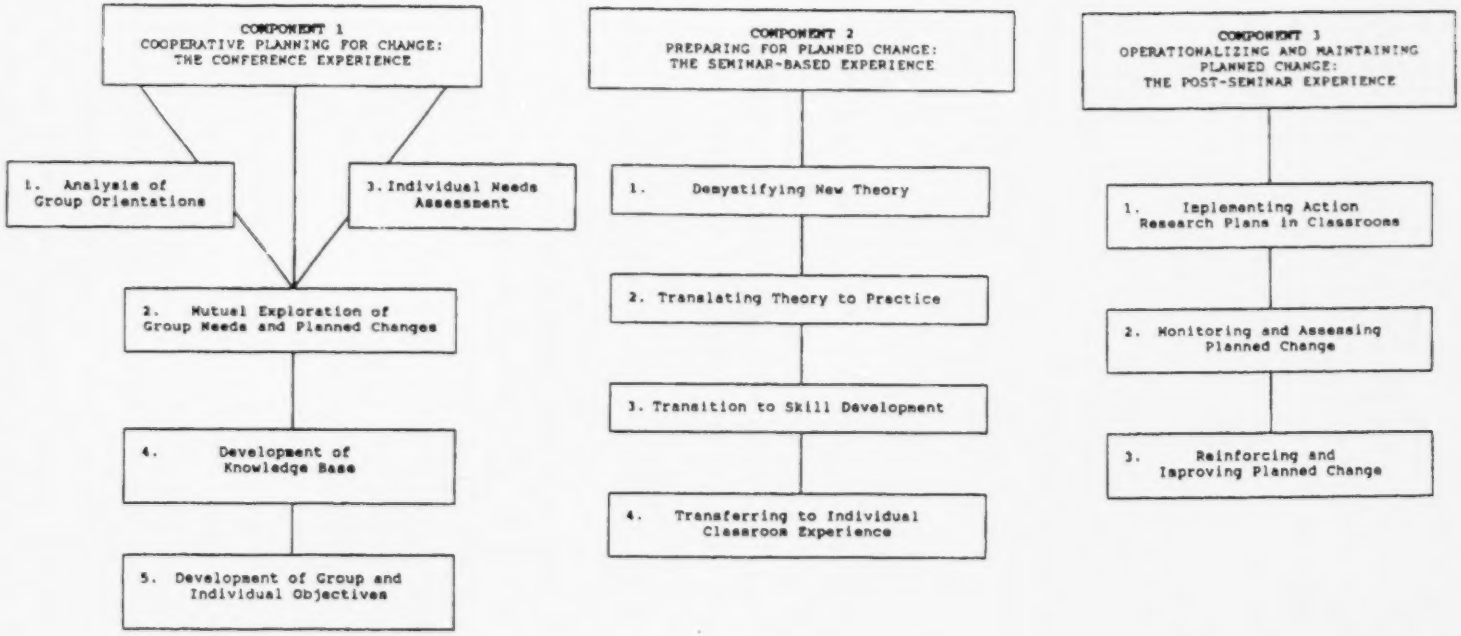
COMPONENT 1
COOPERATIVE PLANNING FOR CHANGE:
THE CONFERENCE EXPERIENCE
1. Analysis of Group Orientations
3. Individual Needs Assessment
2. Mutual Exploration of Group Needs and Planned Changes
4. Development of Knowledge Base
5. Development of Group and Individual Objectives
COMPONENT 2
PREPARING FOR PLANNED CHANGE:
THE SEMINAR-BASED EXPERIENCE
1. Demystifying New Theory
2. Translating Theory to Practice
3. Transition to Skill Development
4. Transferring to Individual Classroom Experience
COMPONENT 3
OPERATIONALIZING AND MAINTAINING
PLANNED CHANGE:
THE POST-SEMINAR EXPERIENCE
1. Implementing Action Research Plans in Classrooms
2. Monitoring and Assessing Planned Change
3. Reinforcing and Improving Planned Change

Figure 1. Composite illustration of a professional development model for planned change.

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expected to implement changes; and 2) outlining strategies for involving the target group in planning for change and shaping professional development experiences.

From the outset, the school leader of Project learn addressed these two important steps. First, from a close, ongoing working relationship with her staff, the school principal had extensive knowledge of Sherwood teachers as a distinct group of learners. The attitudes, priorities, and assumptions which defined these teacher-learners' underlying orientation to professional development were readily discerned. It was then possible to take this information into consideration when planning professional development experience programs for this particular group. A reform project that attempts to understand the unique orientations of teachers as a learning community is one that adult learning theory and change theory would indicate will be effective (Knox, 1977; Sarason, 1972). This position is reinforced by Griffin (1987) who says that "knowledge about teachers as individuals and members of a school group is quite rightly central to staff development work" (p.34).

The efforts of adult education experts like Tough (1978) suggest that professional development leaders should not be imposing their own directions on teachers as much as they should be providing situations in which teachers can be self-directing. This perspective is strengthened by the analyses of writers like Clark (1992) and Ryan (1994) who point out that interest in change ideas and a willingness to adopt them will be encouraged when teachers have made their own investments in the plans and these are perceived as meeting significant needs in the school. Hawley and Valli (1997) write:

> Involve learners (eg. teachers) in identifying what they need to learn and when possible, in developing the learning opportunity of process to be used. This engagement increases

educators' motivation to learn and makes it more likely that what is learned will be meaningful and relevant to particular contexts and problems. (p.4)

An important principle underlying the implementation of Project Learn is the idea that individual teachers working in isolation cannot bring about substantial educational change. Court (1993) says that teacher isolationism and teacher privatism present "an impediment to educational change" (p. 17). Project Learn is further built on the notion that an effective atmosphere for school change is essentially created in groups and that participation in group change builds belief in the potency of collective abilities and peer collaboration (Goodlad, 1975; McIntyre, 1994).

As indicated earlier, Project Learn was activated within a change community which consisted of teachers in the school, teaching assistants, the school principal, and a university professor who collaborated together to bring about change in the school. Weekly school planning meetings provided the primary forum for staff to engage cooperatively in a reflective appraisal of the current status of curriculum and instruction in the school and the climate for reform. These meetings also offered staff the opportunity to mutually explore the prominent needs and problems within the school.

The motivating force behind Sherwood School's Project Learn was the felt need to "increase the learning potential and educational performance of students who are at risk of not succeeding at school" (Hay, 1996, p. 3). The project, developed collaboratively by school principal Sharon Hay and her staff during the school planning meetings, encompasses three major reform goals:

1. To restructure the curriculum to include a range of curriculum experiences that reflect both a discipline and an interdisciplinary orientation. This will involve the collaborative planning over a three year period of six interdisciplinary units that will

be implemented school wide. The expectations for knowledge and skills will be articulated in terms of Dimensions of Learning.

2. To execute changes in the practices of evaluation and assessment of students for the purpose of supporting and facilitating instructional improvement and empowering students to become reflective, self-directed knowledge builders.

3. To introduce a Friendly Helpers Program to our staff, students, and parents. This program will help to teach students the communication skills to facilitate self-exploration and decision making. It will also provide resources to the school community such as academic assistance, problem solving, and conflict management. (Hay, 1996, p.6)

Deborah Court (1993) reminds us that change for teachers is multi-faceted with both shared and private dimensions. She states that "teachers' learning is private in that they must struggle alone to adjust and align their belief systems and established practices to accommodate new methods" (p.15). The model being applied in Project Learn also points to the need to recognize that each teacher comes to the professional development experience with a unique experience base, classroom context, and preferred learning style. As expected, there was a wide range of knowledge and skills among the group of Sherwood teacher-learners and individuals expressed needs that were pertinent to particular teaching situations. The professional development dimension of Project Learn, therefore, was designed to incorporate a variety of professional development experiences and options for teachers, as well as opportunities for individual teacher inquiry. Since planned change is not only group-based, it seemed necessary to invite teachers to express their particular needs within the parameters set by the group for Project Learn.

Another precept that must be addressed in professional development work is that all learning occurs in relation to particular purposes. Curriculum theorists such as Ralph Tyler (1949) and David Pratt (1994) would suggest that the final elements in planning for change should involve the identification of teacher knowledge essential to operationalizing planned changes and the subsequent analysis of this knowledge base into clearly defined objectives. The objectives which were identified and articulated for each reform goal in Project Learn follow.

Goal 1 Objectives for Staff:

1. Will reach fundamental agreement for the interpretations of the curriculum terminology (i.e. to understand what we mean by interdisciplinary unit);
2. Will develop a better understanding of cognition and learning;
3. Will examine several approaches for developing interdisciplinary units;
4. Will design the scope and sequence for the interdisciplinary units;
5. Will learn to use the framework outlined in the *Dimensions of Learning Teacher's Manual* to plan units of instruction;
6. Will specify the skills and processes that will be addressed for each unit;
7. Will use the dimensions to organize instruction;
8. Will implement the unit, evaluate the results, and make revisions as necessary;
9. Will use technology to teach students how to access, process, manage, evaluate, and communicate information.

Goal 2 Objectives for Staff:

1. Will integrate assessment methodologies with instructional outcomes and curriculum content;

2. Will develop test content which matches the knowledge, skills, and processes that teachers are teaching and those that students are expected to acquire;
3. Will assess processes and products;
4. Will identify the criteria used to evaluate student performance;
5. Will develop a reliable rating process;
6. Will include multiple measures taken over time;
7. Will provide students with models of exemplary performance;
8. Will use assessment alternatives such as performance assessment, investigations, demonstrations, journals, exhibitions, written and oral responses, and portfolios.
9. Will develop record-keeping and reporting systems to provide accurate and useful information concerning students' mastery of specific knowledge and skills;
10. Will use test results to refine assessment and improve curriculum and instruction, and provide feedback to students, parents, and the community.

Goal 3 Objectives for Staff:

1. Will understand the role of a Friendly Helper;
2. Will participate in the planning of the Friendly Helpers Program;
3. Will share resources at training sessions;
4. Will nominate members to provide leadership in the program;
5. Will have a role in the selection of students who will be nominated for the program.

(Hay, 1996, pp. 6-7, 9, 12)

Component 2: Preparing for Planned Change

The theoretical model of professional development employed in this case study suggests that

teachers attempting to change need to have opportunities for: a) understanding new knowledge; b) acquiring new skills; c) reflecting and interacting; d) exploring and developing material resources; and e) planning for classroom action. It is also important to apply and integrate into the professional development program known principles of adult learning. Robert Kegan of the Institute for the Managament of Lifelong Education at Harvard University stated in an interview: "It's ironic that principals and superintendents are known as their communities' chief child educators, but their actual success depends more on their talents as adult educators" (Miller and Woronov, 1998, p. 26). Among the conditions considered crucial to helping teachers grow and change are: a) analysing and sequencing learning activities; b) scheduling practice; c) connecting new learning back to the classroom, and d) providing a continuous feedback and support system.

The primary organizational structure and forum for adult learning within Project Learn is the School Planning Committee. The committee consists of all teachers on staff and meets after school on a weekly basis for about two hours in a seminar-discussion format. The purpose of the weekly meetings is to plan changes related to Project Learn collaboratively and to monitor progress towards the desired changes. The School Planning Committee is further sub-divided into three steering committees, each representing one of the three reform goals (Interdisciplinary, Assessment, and Friendly Helpers). The Steering Committees are responsible for leading the implementation of project goals in the school, monitoring the school's progress towards the set objectives, and determining ways to involve the parents and community in the school. Chaired by members of the teaching staff, the Steering Committees meet each month and report back to the School Planning Committee.

The professional development model used in this study recognizes that teachers need to study

and understand the central ideas for planned change before they can support and implement them. Initial learning experiences for Sherwood teachers focussed on demystifying new ideas and facilitating their progress towards understanding them. It was found that explication, analysis and interpretive presentations offered by presenters during professional development days were efficient avenues to meaningful theoretical learning for adults. As a complement, powerful text resources and related professional readings produced by credible, convincing writers were made available to teachers. During some in-services and planning meetings, leaders would invite open commentary which allowed different assumptions about new ideas to be brought to the surface, compared and debated. Teacher's oral expression of personal views during in-services and planning meetings proved to be a useful procedure for monitoring understanding. In addition, steering committees functioned like study groups which targeted the acquisition of new knowledge in specific areas related to the project goals. These study groups were found to be a useful vehicle for encouraging peer collaboration and shared inquiry. Teacher study groups are one of the teacher development activities recommended by Ann Lieberman of Teachers College, Columbia University and Lynne Miller of the University of Southern Maine (1990).

Cognitive learning theorists such as Robert Gagne (1985) suggest that an adult's possession of theoretical knowledge and the application of that knowledge are two distinct aspects of learning and change. It is commonplace, however, for professional development leaders to assume that teachers can move directly from theory to independent application of a change idea in their classrooms. Brown's (1995) ideas are indicative that teacher development leaders are beginning to acknowledge that intermediate steps are needed:

No new strategy, technique, or educational process can be learned in a single session or

> practice opportunity. Meaningful and effective professional growth involves ongoing opportunities for rehearsing new behaviours, receiving effective coaching to perfect them, and using those behaviours in a risk-free environment. (p. 99)

To increase the potential for success in the classroom application of change ideas, additional time and experiences were given to teachers in Project Learn. The second step in preparing teachers for change attempted to translate new theory into practice by giving teachers the experience of the desired curriculum reforms in action. This was accomplished by providing excellent models that Sherwood teachers could emulate. Presentation-demonstrations by guest master-teachers and teacher educators were arranged. In addition, Sherwood teachers had the opportunity to visit other schools and other classrooms in their own school to observe change ideas in authentic ways as colleagues worked with children in their own classrooms. Professional development days were also purposefully planned to include workshop components with strong links to curriculum and instruction which served to illustrate new teaching concepts and behaviours.

Classroom teachers attempting to change their practice have an overwhelming need for new and appropriate instructional materials. Teachers consistently comment about the limited exposure to and availability of resources for the classroom. If not informed in an organized and systematic way about what is available, teachers will work with second-rate tools that do not necessarily support their efforts to change (Rubin, 1987). In Project Learn, many new resources were acquired for the school to support school-wide themes and new instructional approaches. Items of high quality and interest were also brought to the attention of teachers during in-services, workshops, and conference presentations.

Final steps in preparing for planned change involves helping teachers make the transitions

from observing others teach to developing their own skills and finally transferring and relating change ideas to their own classrooms. Throughout these steps, teachers need opportunities for interaction, support, and technical assistance. Since the goals of Project Learn are being addressed via collective action, teachers have the opportunity to help each other plan new curriculum as a large group or even teach in new ways at first with a partner. Sherwood teachers also felt free to invite other teachers or the school principal into their classrooms for informal observations and coaching. School planning and/or steering committee meetings provided useful forums for reflection, group critique, and discussion which can help teacher-learners resolve classroom problems.' Lieberman and Miller (1990), have provided evidence which shows that teachers who share and provide mutual assistance to each other contribute to a more positive school culture and are more likely to change.

Component 3: Operationalizing and Maintaining Planned Change

The short-term achievements of so many reform efforts in schools point to the need for new professional development models that suggest specific strategies for enduring change (McLaughlin & Talbert, 1993; Pratt, 1994). The model applied in this study suggests that a continued program of classroom experience, on-site visitations and feedback, and follow-up workshops are critical for teachers attempting to change over the long term.

Teachers' abilities to link theoretical understandings about reforms with practice improves dramatically when they have the chance to apply theory in their own classrooms. Scholars now suggest that effective professional development "takes place primarily in the school and is integral to school operations" (Lewis, 1998, p. 13). The first element in the third component, then, is essentially change in classroom operation with the implementation of curriculum plans designed by Sherwood teachers. The plans are undertaken by teachers to test the assumptions of change ideals

and are conceived as ways of providing teachers with the direct experience and evidence of student growth necessary for consolidating change in practice and beliefs (Check, 1998; Hubbard & Power, 1993; Wells, 1994). As a basis for self-reflection and analysis, it was recommended that teachers document their experiences and keep some kind of written or audio log.

Researchers like Joyce and Showers (1980) portray the teacher as an excellent learner but one who requires feedback and coaching in the classroom to complement their theoretical learning about change. Similarly, collaborative models of professional development provide opportunities for teachers to solve problems and work together on areas of common concern (Hawley & Valli, 1997). The need to provide constructive feedback is necessary to help combat the stresses and strains of traditionalism once teachers attempting to change are back working on their own in classrooms. The second step towards operationalizing and maintaining planned change, then, is to monitor and evaluate the level of change, provide constructive feedback, and assist teachers in overcoming practical roadblocks they might encounter.

The supervision system used to cultivate the change process in Project Learn involved testing new practices with systematic support from the school principal, peer teachers, and the researcher. Although many informal observations and classroom visitations were made, school planning meetings provided the main forum for teachers to discuss the results of their efforts to implement change in their classrooms. Steering committees, as mentioned earlier, played a greater role in monitoring the level of change by: a) assessing the extent to which change objectives were being met in the school; b) coaching colleagues through analysing implementation and providing feedback and resources; c) demonstrating or modelling for peers; and d) conferencing with peers about particular change objectives. In addition, Sherwood School entered into a collaborative inquiry with

the University of Manitoba by hosting student teachers in the Early Years Program. The ongoing relationship with student teachers and faculty proved to be a viable professional development strategy for change.

The literature on school change indicates that maintaining planned change requires an ongoing cluster of professional development activities inside and outside of the school that will continue to reinforce and support the teachers' learning (Guskey, 1986; Hawley & Valli, 1997; Lewis, 1998). School planning meetings and inter-classroom or inter-school visitations were used in Project Learn as ways of facilitating the collegiality and communication necessary for effective and on-going school reform. These exchange forums were used to share effective plans for teaching and learning, highlights of classroom experiences, reviewing student work, troubleshooting and problem solving. Smaller group support sessions involved periodic meetings of assignment-alike teacher groups.

A continuous program of follow-up workshops throughout the year was also crucial to Project Learn. These served to renew and maintain the interest and inspiration of Sherwood teachers as well as to expand learning. An interactive in-service model was used as a means of formative planning to have teachers identify specific areas of professional need. Stemming from teachers' suggestions for topics, guest presenters, or experiences, a series of workshops was organized and implemented. And finally, professional readings were used to learn more about change ideas and successful strategies for implementing changes. Common readings were shared formally at workshops and planning meetings, while specific readings were shared more informally with individual teachers. New professional resources related to Project Learn were placed in the Sherwood School Teachers' Library to stimulate reading and conversation. These resources were

located in a small office off the school library and placed strategically on shelving over the teachers' telephone so that they would not be missed.

Professional Development Days

Schools in the River East School Division are allotted ten days each year for administration and/or professional development purposes. Sherwood teachers participated in a total of five planned professional development days during the first year of the project. The first day "Planning for Change" was used to launch the research project with teachers in a very interactive way. The primary aims were to: a) provide a forum for teacher to discuss one of the change ideals, interdisciplinary teaching and learning, and b) give teachers the opportunity to have input into the planning of a future in-service day around this topic.

"Planning Interdisciplinary Curriculum" represented the follow-up to the first day and was presented by a team of classroom teachers and teacher educators. The morning was spent with two classroom teachers who used a multi-media style of presentation to take Sherwood teachers through an inquiry they developed in their classroom with children around the theme of "Cities." A university drama instructor continued with a session on how educational drama and techniques such as improvisation, teacher-in-role, and tableau can be used as tools for inquiry-based teaching and learning. In the afternoon, a music and movement professor used a "Rainforest" theme to show how specialists in the school, and the disciplines of music and movement, can become a meaningful part of a classroom inquiry.

The third and fourth days were spent in "Small Schools Technology Workshops I and II." These were planned by principals within a small schools network as a follow-up to workshops offered the previous year to which teachers responded positively and requested more. Teachers were

given the opportunity to chose to participate in one of the following sessions: a) Introduction to Computers; b) Spreadsheets, Graphing, and E-Mail; c) Data Base; and d) Hyper Studio. Teachers spent the morning in a session and the afternoon in follow-up and application at school.

The final professional development day was devoted to Sherwood teachers' struggles with the new Mathematics curriculum. A list of related questions and instructional problems was drafted and shared with the Mathematics Consultant for the school division which were to be addressed at the "Mathematics Workshop." After each professional development day, teachers reactions were gathered using a form designed by the researcher. Teachers were asked to respond to eight statements using a five-point rating scale. In addition, space was provided for open-ended comments.

Table 1 shows the distribution of ratings by teachers for the "Planning for Change In-Service." From an overall perspective, it can be seen that most teachers (92.7%) gave very high ratings for all items. Seven of 12 or 58.3% of participants chose to make additional comments in reference to the in-service on their reaction forms. Participants generated a total of seven lines of typed text. A content analysis of the text revealed that all comments were positive and could be discussed in the context of three emergent themes: anticipation, appreciation, and input. Two of seven (28.6%) lines of writing expressed anticipation about the next session. Appreciation for the opportunity to clarify, reflect, and collaborate was evident in three of the seven (42.9%) lines of text. And finally, two of seven (28.6%) lines of text captured participants views about valuing input, both internal and external.

Table 1
Distribution of Ratings by Teachers:
Planning for Change In-Service

N = 12 Items		Respondents' Choices 1 poor	2 satis-factory	3 good	4 very good	5 excel-lent
1.	The overall quality of this in-service was...	0	0	2.5	6.5	3
2.	In general, this leader's presentation was...	0	0	0	7	5
3.	The contribution of this in-service to sharing of our knowledge was...	0	0	1	6	5
4.	The presenter's preparation and organization for today was...	0	0	0	1.5	10.5
5.	The clarity of aims for today's in-service was...	0	0	1.5	1.5	9
6.	The presenter's knowledge of the in-service content appeared to be...	0	0	0	3	9
7.	The in-service, as far as being interesting and attention-holding was...	0	0	2	5	5
8.	The presenter's encouragement of participation discussion and input was...	0	0	0	3	9
Sub-Totals		0	0	7	33.5	55.5
Percent of Total		0.0%	0.0%	7.3%	34.9%	57.8%

Similar results are revealed in Table 2 which displays teachers' ratings for the "Planning Interdisciplinary Curriculum In-Service. Ninety-seven percent of respondents gave ratings of 4 or 5 to every item indicating an overwhelmingly high degree of satisfaction with the professional development day. Thirteen of 15 participants or 86.7% of participants chose to make additional comments in reference to the in-service on their reaction forms. Participants generated a total of 13.5 lines of typed text. A content analysis of the text revealed 11 of 13.5 lines of text or 81.5% of respondents' writing was very positive. Approximately equal amounts of respondent's comments were devoted to positive comments about the helpful classroom ideas and resources provided (4 of 13.5 or 29.6%) and the inspirational/motivational nature of the in-service (4 of 13.5 or 29.6%). In about 3 lines of text (22.2%), respondents expressed their overall satisfaction with the day and the desire for more time with the presenters. In a smaller proportion of the writing (2.5 of 13.5 lines or 18.5%), one respondent suggested that one part of the presentation was somewhat teacher-directed.

Tables 3 and 4 reveals some teacher dissatisfaction with the Small Schools Technology Workshops I and II with only half of the participants giving ratings of very good or excellent to all items. Three of seven or 42.9% of participants chose to make additional comments in reference to the spring in-service on the their reaction forms. Participants generated a total of five lines of typed text. A content analysis of the text revealed that the comments were mixed. Three and one-half (70%) lines of writing suggested that the in-service did not meet personal needs in the area. Satisfaction with the in-service was evident in one and one half (30%) lines of text. Four of seven or 57.1% of participants chose to make additional comments in reference to the fall in-service generating a total of six lines of typed text. A content analysis of this text revealed the same mixed results. Three lines (50%) of text suggested that the participants commenting felt ill-prepared to

Table 2
Distribution of Ratings by Teachers:
Planning Interdisciplinary Curriculum In-Service

N = 15 Items		Respondents' Choices 1 poor	2 satis-factory	3 good	4 very good	5 excel-lent
1.	The overall quality of this in-service was...	0	0	0	0	15
2.	In general, this leaders' presentations were...	0	0	0	1	14
3.	The contribution of this in-service to confronting our challenges in planning interdisciplinary curriculum was...	0	0	0	7	8
4.	The presenters' preparation and organization for today were...	0	0	1	1	13
5.	The contribution of this in-service to answering our questions about interdisciplinary teaching and learning was...	0	0	1.5	8	5.5
6.	The presenters' knowledge of the in-service content appeared to be...	0	0	0	2	13
7.	The in-service, as far as being interesting and attention-holding was...	0	0	0	1	14
8.	The contribution of this in-service to providing strategies and materials for use in the classroom was...	0	0	1	4	10
Sub-Totals		0	0	3.5	24	92.5
Percent of Total		0.0%	0.0%	2.9%	20%	77.1%

Table 3
Distribution of Ratings by Teachers:
Small Schools Technology Workshop (Spring '97)

		Respondents' Choices					
N = 7 Items		1 poor	2 satisfactory	3 good	4 very good	5 excellent	No response
1.	The overall quality of this in-service was...	0	1	1	3	1	1
2.	In general, this leader's presentation was...	0	1	1	3	1	1
3.	The contribution of this in-service to my understanding of technology in my teaching was...	0	2	2	1	1	1
4.	The presenter's preparation and organization for today was...	0	1	1	3	1	1
5.	The contribution of this in-service to answering my questions about technology and teaching was...	1	1	1	1	1	2
6.	The presenter's knowledge of the in-service content appeared to be...	0	0	0	4	2	1
7.	The in-service, as far as being interesting and attention-holding was...	0	2	1	2	1	1
8.	The contribution of this in-service to providing strategies and materials for use in the classroom was...	1	2	0	1	1	2
Sub-Totals		2	10	7	18	9	10
Percent of Total		3.6%	17.9%	12.5%	32.1%	16.1%	17.9%

Table 4
Distribution of Ratings by Teachers:
Small Schools Technology Workshop (Fall '97)

N = 7 Items		Respondents' Choices					
		1 poor	2 satisfactory	3 good	4 very good	5 excellent	No response
1.	The overall quality of this in-service was...	0	1	3	1	2	0
2.	In general, this leader's presentation was...	0	1	3	1	2	0
3.	The contribution of this in-service to my understanding of technology in my teaching was...	0	2	1	2	1	1
4.	The presenter's preparation and organization for today was...	0	1	2	2	2	0
5.	The contribution of this in-service to answering my questions about technology and teaching was...	1	1	1	1	2	1
6.	The presenter's knowledge of the in-service content appeared to be...	0	0	0	1	5	1
7.	The in-service, as far as being interesting and attention-holding was...	0	2	1	1	2	1
8.	The contribution of this in-service to providing strategies and materials for use in the classroom was...	1	1	1	2	1	1
Sub-Totals		2	9	12	11	17	5
Percent of Total		3.6%	16.1%	21.4%	19.6%	30.4%	8.9%

Table 5
Distribution of Ratings by Teachers:
Mathematics Workshop

N = 9 Items		Respondents' Choices 1 poor	2 satisfactory	3 good	4 very good	5 excellent
1.	The overall quality of this in-service was...	0	1	2	2.5	4.5
2.	In general, this leader's presentation was...	0	0	2	3	4
3.	The contribution of this in-service to our understanding of the "Shapes and Space" strand of the new Mathematics curriculum was...	0	2	0	2	5
4.	The presenter's preparation and organization for today was...	0	0	2	0	7
5.	The contribution of this in-service to answering our specific questions about Math teaching and learning was...	0.5	2.5	0	4	3
6.	The presenter's knowledge of the in-service content appeared to be...	0	0	1	1	7
7.	The in-service, as far as being interesting and attention-holding was...	1	0	1	3	4
8.	The contribution of this in-service to providing strategies and materials for use in the classroom was...	2	0	0	1.5	5.5
Sub-Totals		3.5	4.5	8	17	35
Percent of Total		5.1%	6.6%	11.8%	25.0%	51.5%

follow-up on what was learned in the in-service. An equal proportion of text (three line or 50%) was positive, indicating satisfaction with the in-service.

Teachers' ratings for the "Mathematics Workshop" shown in Table 5 suggest that most participants (76.5%) were quite satisfied with this professional development day. Five of nine or 55.6% of participants chose to make additional comments in reference to the in-service on their reaction forms. Participants generated a total of four and one half lines of typed text. A context analysis of the text revealed that all but one half line (four lines or 88.9%) of text was devoted to comments of a positive nature. Comments reflect enjoyment and satisfaction with the level of practicality of the in-service. A dissatisfaction with the amount of direct experiences used in the in-service was evident in one half line or 11.1% of the text.

Conversations With Teachers

Towards the end of the first year of the project, a morning of one administration day was used to give Sherwood teachers the opportunity to examine their changing practice. The staff was divided into two smaller discussion groups with one facilitator, one time keeper, and two scribes assigned to each group. The Sherwood staff was given a set of focusing questions designed by the researcher to help them reflect on and evaluate the progress they perceived to be making as a school community towards the change ideals articulated in Project Learn (See Appendix A). An additional aim of the small group discussions was to set a professional development agenda for the future. Teachers were asked to consider the questions, discuss them thoroughly, record the highlights of their conversations, and then share them in the larger group.

Two of the discussion questions were designed to target one of the research questions focusing on what evidence might be provided to suggest that Project Learn is being successfully

implemented in the school. A summary table of a content analysis of the small group discussion comments around the goals of Project Learn is displayed in Table 6. This analysis, in part, contributes to the answering of that research question by uncovering teachers' perceptions of the progress they are making towards reaching each of the three central goals. Also, connected to the question of evidence is the content analysis of small group discussion comments of key indicators and evidence of change in the school displayed in Table 7.

Table 6
Summary Table of Content Analysis of Small Group Discussion Comments of Project Learn Goals

Thematic Categories
1. Progress Towards Reaching Goal: Interdisciplinary Curriculum
1.1 Operation of school store.
1.2 Bulletin board display of "Linking It All Together"
1.3 Integrated nature of school newsletter.
1.4 Literature resources purchased to support Math curriculum.
1.5 Implementation of school-side "Connections" theme.
1.6 Teachers consciously making an effort to connect.
2. Progress Towards Reaching Goal: Assessment and Evaluation
2.1 Individual teachers are working diligently on assessment and evaluation.
2.2 Changed practice to include increased use of multiple assessment types such as: portfolio assessment, rubrics, performance tasks, observation, checklists, inclusion of the child's voice, selection of exemplary work samples, and clear expectations.
2.3 Increased focus on and attention towards Math assessment and evaluation.
2.4 Changed teacher beliefs of assessment as a cyclical process - not an end or a linear process.
2.5 Increased integration of different types of assessment into daily practice.
2.6 General increase in teacher talk about assessment and evaluation issues.

(table continues)

3. Progress Towards Reaching Goal: Friendly Helpers
   - 3.1 Recess supervision is more positive and less stressful.
   - 3.2 Staff has clearer expectations and is more consistent with behavior management.
   - 3.3 Student/school property is safer now and treated with more respect.
   - 3.4 Staff is managing student behavior through a pro-active, collaborative, discussion approach.
   - 3.5 Students are encouraged to take responsibility through a school-based "Employment Opportunity Program" which operates fully and is working very successfully.

Note: N=15. Small discussion groups consisted of classroom teachers, specialists, para-professionals, and student teachers.

Table 7
Summary Table of Content Analysis of Small Group Discussion of Key Indicators/Evidence of Change

Key Indicators
• Teacher talk reflects: a) changes in beliefs about learning; b) more talk about teaching and learning; and c) more sophisticated talk about teaching and learning.
• Physical features of the building are different (i.e. re-organization of spaces to facilitate collaboration).
• Classrooms set-ups are changing and look different (i.e. nature of bulletin boards).
• Increased sharing and collaboration among teaching staff.
• School is significantly more child-centered.
• Children have taken ownership of the school newsletter.
• Teachers assessment and evaluation of students indicate positive learner progress across curriculum areas.
• Commencement of new programs in the school such as: Gift Shop, Birthday Book Club, Science Club, Drama Club, and Intra-murals.
• Increased curriculum emphasis on Mathematics in the school.

Table 8 represents a summary of the content analysis of small group comments revolving around teachers' perceptions about the progress they are making towards some of their most pressing questions related to Project Learn. After reflecting on the changing experiences and practices of the past year, teachers were also able to identify new questions that emerged related to Project Learn.

Table 8
Summary Table of Content Analysis of Small Group Discussion Comments of Most Pressing and New Questions Related to Project Learn

Thematic Categories
1. Progress Towards Answering Most Pressing Questions Related to Project Learn
1.1 Progress is being made towards answering pressing questions such as: How in the heck are we going to do this? How do we do all of this? What will it entail? How will Project Learn become a part of what we're doing? How can we make it all hang together?
1.2 We have figured out how to integrate more assessment into our teaching.
1.3 We consciously make more effort to connect activities to the curriculum.
1.4 We are changing our assessment practices by informing children of the criteria for assessment before the task is given, making children aware of assessment and evaluation strategies, and matching strategies and outcomes to the children's learning.
1.5 We ask each other for help and we are able to move forward by using what our colleagues have to offer.
2. Emerging New Questions Related to Project Learn
2.1 How to improve assessment practice in the school?
2.2 How will we conform to writing standards tests?
2.3 How does brain research connect with instruction?
2.4 Interdisciplinary teaching used to be our focus, but now is being taken over by questions such as: "What does the government expect from us? How do we put together what we believe is effective assessment and meet the government expectations? Why is the development of the child not being considered as much as the results of tests? Are people making decisions about assessment really in the "know"? Does the government have the "big picture" or are they flying by the seat of their pants?
2.5 Where do educators find the energy, time, and desire to implement the government and divisional plans while still balancing a student-centered school?

During the small group discussions, teachers were asked to reflect on all of the professional development strategies that had been used over the last year to help them bring about the desired changes. Table 9 offers a summary of the content analysis of group discussion comments and serves to identify teachers' feelings about the most effective professional development strategies used in Project Learn. In addition, the staff identified what they believe to be the unique and different

features of the professional development approach being employed in Project Learn. These findings confirm teachers' desire for and acknowledgement of new models of professional development.

Table 9
Summary Table of Content Analysis of Group Discussion Comments of Professional Development Strategies Used in Project Learn

Thematic Categories	
1.	Most Effective Professional Development Strategies Used in Project Learn
1.1	In-school in-services that meet our school needs and support curriculum.
1.2	Steering committees (bottom up vs top down approach)
1.3	Hosting student teachers.
1.4	Teacher-planned in-services.
1.5	School planning meetings.
1.6	Links to outside of building (i.e. university, other teachers, professional reading).
2.	Unique Features of the Professional Development Approach Used In Project Learn
2.1	Teacher-driven professional development program.
2.2	Project Learn drives our professional development and what happens in our classrooms rather than outside professional development.
2.3	Support staff is included.
2.4	Use of steering committees.

The change literature tells us that there are a variety of factors which can affect educational change (Riecken & Court, 1993; Sarason, 1982). To explore that research question more fully, teachers were asked to identify factors, other than professional development experiences, that were contributing to positive change in Sherwood School. Table 10 gives a summary of the content analysis of the small group discussion comments that centred around these other factors.

Table 10
Summary Table of Content Analysis of Small Group Discussion Comments of Other Factors Contributing to Positive Change

Thematic Categories
• Physical changes in the school (i.e. painting, new location of store, Art Gallery, Multi-Purpose Room).
• Administrative support and style.
• Shared support and responsibility for students.
• Strengthening relationships with parents via "open door" or "parents as partners" policy.
• Common vision and philosophy among school staff.
• The small size of the school.
• Positive "tone" of school.

The change literature also warns those attempting reforms to expect to encounter obstacles that can operate in opposition to positive school change. Tye and Novotney (1975) state:

> Understanding the concept of change and theories about how it occurs is not sufficient for the effective change agent. He must also understand that the school is full of obstacles which must be recognized and planned for if the change effort is to be successful. (p. 81)

To answer the fifth research question, teachers were asked to identify any factors that were hampering change in Sherwood School as well as to generate ways to confront these challenges. The content analysis of the small group discussion comments around these issues is presented in Table 11.

Table 11
Summary Table of Content Analysis of Small Group Discussion Comments of Factors Hampering Change and Ways to Confront Challenges

Thematic Categories	
1.	Factors Hampering Change
1.1	External pressures such as: standards tests, new curricula, published test results, public perception, poor teacher image, technology, new report card.
1.2	Small school size (i.e. heavier workload).
1.3	Lack of parent involvement in the school.
1.4	Money, resources, cut-backs.
1.5	Teacher fear of unknown.
1.6	Lack of time.
2.	Ways to Confront Challenges
2.1	Communication with parents via newsletter and direct contact.
2.2	Increase the involvement of parents in school.
2.3	Gather and share school-based evidence of individual children's growth.
2.4	Team work (i.e. Addressing Math problem as a whole school rather than Grade 3 and 6 issue).
2.5	Work with MTS to establish a more positive public image for teachers in the province.
2.6	Lobby more effectively for more funding and develop ways to do more with less money.
2.7	Educate self-care for teachers.

Towards the end of the small group discussions, teachers were asked to consider the ongoing relevancy of the goals of Project Learn as well as their commitment to them. In addition, teachers were asked to identify any new and more important issues that emerged over the year that might be causing their attention to shift. Table 12 summarizes the content analysis of teachers comments around these matters. And finally, teachers were invited into the planning of a professional development agenda for the near future. Table 13 provides a synoptic account of the content analysis of the small group discussion comments of teachers' present focus, most persistent and enduring questions, and professional development needs for the near future.

Table 12
Summary Table of Content Analysis of Small Group Discussion Comments of the Relevancy of the Goals of Project Learn

Thematic Categories
1. Relevancy of and Commitment to Project Learn Goals
1.1 The goals are still relevant.
1.2 Teachers are still committed to meeting these goals.
2. New Issues Causing Us to Shift Our Attention
2.1 Standards testing.
2.2 All external influences (i.e. public perception).
2.3 Addressing new government documents, expectations, and curricula.
2.4 Directives from division.

Table 13
Summary Table of Content Analysis of Small Group Discussion Comments of Present and Future Agenda

Thematic Categories
1. Our Focus at the Present
1.1 Weaving Project Learn goals with government expectations.
1.2 Be pro-active not reactive.
1.3 Assessment and evaluation.
2. Ways to Answer Our Most Persistent and Enduring Questions
2.1 School-driven professional development.
2.2 School planning meetings.
2.3 Continue to learn and discuss collaboratively as a staff.
2.4 Steering committees.
3. Our Professional Development Agenda for the Near Future
3.1 Teacher Wellness and Socialization
3.2 Individual professional development plans for teachers.
3.3 Time to plan, work, and reflect together.
3.4 Assessment and evaluation.

To complement the small group discussions which were intended to focus on holistic school change versus classroom change, interviews were conducted individually with classroom teachers. Teachers' classroom experience ranged from 7 to 27 years with a mean of 18.8 years of teaching experience. Each teacher had a range of experience from 4 to 8 different assignments spanning N/K to Grade 6 over their careers, resulting in an average of 5.8 different assignments per teacher. Interviews ranged from 27 to 50 minutes with an average duration of 36.4 minutes. The thematic categories which emerged as a consequence of the content analysis of their comments are displayed in Table 14. The categorical framework was derived from the interview questions appearing in Appendix A. Teachers' comments are listed under each theme from most to least frequently stated. This analysis was undertaken to determine the overall emphasis placed on sub-themes and to make comparisons with the data derived from the small group discussion data.

Table 14
Summary Table of Content Analysis of Teacher Interviewees' Comments (N=5)

Thematic Categories	
1.	Forces Motivating Reform
1.1	Teacher felt need to improve curriculum and instruction for "at risk" students.
1.2	External influences from school division and government.
1.3	Teacher felt need for more knowledge.
1.4	Change of teaching assignment.
1.5	School administration.
2.	Addressing Individual Needs Within Project Learn
2.1	Project was not restricting and enabled individuals to assess needs and develop and individual professional development plans.
2.2	Change of teaching assignment dictated individual needs.
2.3	Professional development experiences within Project Learn, in combination with external experiences (i.e. courses, readings, discussion), served to meet individual needs.

(table continues)

3. Key Indicators of Progress Towards Project Learn
   - 3.1 Progress towards all three goals have been made in my classroom.
   - 3.2 New instructional strategies are being implemented in my classroom (i.e. interdisciplinary curriculum, developing community, authoring circles, no teacher desk, student-prepared newsletter, inquiry, writer's notebooks, portfolios, involving parents, performance tasks).
   - 3.3 The most progress has been made towards interdisciplinary learning goal.
   - 3.4 The least progress has been made in the area of assessment.

4. Most Effective Professional Development Strategies Used in Project Learn
   - 4.1 Weekly school planning meetings.
   - 4.2 Teacher-driven in-services with classroom follow-up and time for reflection.
   - 4.3 Opportunities for dialogue and sharing in a risk-free environment.
   - 4.4 Monthly staff meetings.

5. Unique Features of the Professional Development Approach
   - 5.1 Democratic approach to change in which teachers are involved.
   - 5.2 Teachers work collaboratively on change project.
   - 5.3 There is opportunity for choice and reflection.
   - 5.4 In-services are not forced upon teachers.
   - 5.5 Time and opportunity for teachers to connect have been created.
   - 5.6 An open, free learning environment that invites risk-taking has been created.
   - 5.7 The approach is cyclical vs linear.
   - 5.8 Conditions are provided for critical incidents/peak experiences to occur.

6. Influence of Professional Development on Teacher Growth
   - 6.1 Project Learn has supported my exploration, growth, and learning to a great extent.
   - 6.2 My new teaching assignment offers even more room to grow.

7. Other Factors Contributing to Positive Change
   - 7.1 Administrative leadership and support.
   - 7.2 Common vision for school that was developed collaboratively.
   - 7.3 Long term plans for change.
   - 7.4 Opportunity for dialogue and collaboration with internal and external people.
   - 7.5 Working together towards change.
   - 7.6 Creation of a change community.
   - 7.7 Creation of a positive learning environment for teachers.
   - 7.8 Hosting student teachers.
   - 7.9 The nature of the staff who are all dynamic, life-long learners who are willing to take risks.
   - 7.10 Professional reading and subsequent implementation of ideas in classroom.
   - 7.11 Physical changes in the school.

(table continues)

8. Obstacles Encountered in Change Efforts
   - 8.1 External pressures from government, division, and parents.
   - 8.2 Lack of time to think and collaborate.
   - 8.3 Desire to go back to familiar territory.

9. Ways to Combat Obstacles
   - 9.1 Advocacy and lobbying in appropriate political circles.
   - 9.2 Encourage powerful people like superintendents or organizations like MTS to speak out on behalf of teachers and children.

Note: N=5. The teachers interviewed were 5 of the 9 originally consenting to participate in the study in Jan. 97 as well as those who remained employed in the school during the 1997-1998 academic year. Comments are listed under each theme from most to least frequently stated.

Preliminary Conclusions

The year one research findings suggest that the Sherwood staff and school principal have successfully been able to make progress towards changing their visions about Project Learn into a school reality. The implication is that professional development is an important element in planning for change in schools and that the model used in this study has been effective. The success of planned change in schools seems to depend on providing teachers with opportunities to learn under the guidance of school leaders who are able to provide optimal conditions for facilitating and sustaining professional change.

Efforts to transform traditional practices in schools clearly involves the development of a strong change community and a context for sustained teacher learning. Significant change depends on a long-range perspective about professional development and an effective sequence of experiences formatted in a way to enhance teachers' learning and comfort. External collaborators who are prepared to offer stability to local projects and who are prepared to be involved in the design and delivery of activities seems advantageous. It is important to recognize that any concept of school reform requires time, money and high levels of commitment and support from all partners -

teachers, support staff, school administrators, and external collaborators.

Effective professional development programs appear to be the product of de-centralized planning. Important considerations are the unique orientations and needs which teachers, both as a target group and as individuals, bring to the professional development experience. A good program depends on a well conceived plan of action which emanates from the critical reflection and self-direction of the teaching staff. Teachers should be provided with opportunities to plan collaboratively with school principals and establish clear objectives for change.

The realization of desired reforms in schools demands a teacher preparation experience that goes beyond the traditional model of short-term, passive activities with limited follow-up. Teachers need more intensive preparation which recognizes the distinct graduations from learning new knowledge and skills to the independent application of these. Strategies should be designed to deal with the special challenges of illuminating change ideas and modifying teachers' beliefs and practices. Opportunities should be offered for continuous evaluation, peer support and dialogue, and obtaining resources which address context-specific needs. Teachers need to work in a safe, risk-taking environment on problems of individual concern which connect to the changing vision for the school as well as the realities of their own classrooms.

The promise of enduring change calls for a professional development program that encompasses much work in teachers' classrooms. A period of trial and experimentation with change ideas helps teachers get the direct feedback they need about their students' learning that is so necessary for teacher change. Continued on-site support and technical assistance beyond the preparation stage will help teachers persist with change efforts and tolerate occasional disappointments. Teachers attempting to internalize change need to be further nourished by relevant

follow-up workshops and experiences, collaboration with peers, and other forums for expanded learning. Leaders also need to be cognizant of factors, outside of professional development, that might be exerting a positive influence on change in the school (i.e. physical changes in the school, size of school, change in teaching assignment), as well as factors that might be hampering change (i.e. external pressures from the government, division, and/or parents, lack of time and money, teacher fear).

Several critical conditions were uncovered during the first year of Project Learn which had a positive synergistic effect on school change. Some of these include: a) a supportive climate for change; b) shared vision for school change; c) strong links between theory and practice; d) professional collaboration and comradery; e) authentic and integral links to learners in the school; f) administrative and financial support; and g) links outside of the school. Effective strategies employed were: a) weekly school planning meetings; b) teacher-driven in-services with follow-up and links to curriculum; c) team curriculum planning; d) testing new practices e) steering committees connected to change goals; f) opportunities for teacher dialogue and sharing; g) hosting student teachers; and h) related teacher resources.

Endnotes

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APPENDIX A

DATA COLLECTION TOOLS

Reaction Forms

Observation Recording Form - School Touring

Small Group Discussion Questions

Interview Recording Form

Planning for Change
Sherwood School In-Service
River East School Division No. 9
January 24, 1997
Presenter: Dr. Francine Morin, Faculty of Education

REACTION FORM

Please use the following rating scale when responding to each item: 1=poor; 2=satisfactory; 3=good; 4=very good; 5=excellent.

1.	The overall quality of this in-service was...	1 2 3 4 5
2.	In general, this leader's presentations was...	1 2 3 4 5
3.	The contribution of this in-service to sharing of our knowledge was...	1 2 3 4 5
4.	The presenter's preparation and organization for today was...	1 2 3 4 5
5.	The clarity of aims for today's in-service was...	1 2 3 4 5
6.	The presenter's knowledge of the in-service content appeared to be...	1 2 3 4 5
7.	The in-service, as far as being interesting and attention-holding was...	1 2 3 4 5
8.	The presenter's encouragement of participant discussion and input was...	1 2 3 4 5

Comments:_____

Planning Interdisciplinary Curriculum
Sherwood School In-Service
River East School Division No. 9
February 21, 1997
Presenters: Ms. Andrea Stuart/ Ms. Donna Massey-Cudmore, Wolseley School
Prof. Liz Coffman/Dr. Francine Morin, Faculty of Education

REACTION FORM

Please use the following rating scale when responding to each item: 1=poor; 2=satisfactory; 3=good; 4=very good; 5=excellent.

1.	The overall quality of this in-service was...	1 2 3 4 5
9.	In general, these leaders' presentations were...	1 2 3 4 5
10.	The contribution of this in-service to confronting our challenges in planning interdisciplinary curriculum was...	1 2 3 4 5
11.	The presenters' preparation and organization for today were...	1 2 3 4 5
12.	The contribution of this in-service to answering our questions about interdisciplinary teaching and learning was...	1 2 3 4 5
13.	The presenters' knowledge of the in-service content appeared to be...	1 2 3 4 5
14.	The in-service, as far as being interesting and attention-holding was...	1 2 3 4 5
15.	The contribution of this in-service to providing strategies and materials for use in the classroom was...	1 2 3 4 5

Comments:_____

_____

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Small Schools Technology Workshop

Sherwood School In-Service
Small Schools Network Workshop Series
Spring, 1997

Check the session and presenter that applies to you:

___ Introduction to Computers
___ Spreadsheets, Graphing, and E-Mail
___ Data Base
___ Hyper Studio

Name the presenter of the session you attended:

_____

REACTION FORM

Please use the following rating scale when responding to each item: 1=poor; 2=satisfactory; 3=good; 4=very good; 5=excellent.

1.	The overall quality of this in-service was...	1 2 3 4 5
2.	In general, this leader's presentation was...	1 2 3 4 5
3.	The contribution of this in-service to my understanding of technology in my teaching was...	1 2 3 4 5
4.	The presenter's preparation and organization for today was...	1 2 3 4 5
5.	The contribution of this in-service to answering my questions about technology and teaching was...	1 2 3 4 5
6.	The presenter's knowledge of the in-service content appeared to be...	1 2 3 4 5
7.	The in-service, as far as being interesting and attention-holding was...	1 2 3 4 5
8.	The contribution of this in-service to providing strategies and materials for use in the classroom was...	1 2 3 4 5

Please make additional comments on the morning in-service and/or the effectiveness of the afternoon follow-up at school:_____

_____

_____

_____ **(continue on reverse)**

Small Schools Technology Workshop

Sherwood School In-Service
Small Schools Network Workshop Series
September 29, 1997

Check the session and presenter that applies to you:

___ Introduction to Computers (Janet Rent)
___ Spreadsheets, Graphing, and E-Mail (Herb Reynolds/Delores Stupak)
___ Data Base (Mike Quinn)
___ Hyper Studio (Carla Gould)

REACTION FORM

Please use the following rating scale when responding to each item: 1=poor; 2=satisfactory; 3=good; 4=very good; 5=excellent.

1.	The overall quality of this in-service was...	1 2 3 4 5
2.	In general, this leader's presentation was...	1 2 3 4 5
3.	The contribution of this in-service to my understanding of technology in my teaching was...	1 2 3 4 5
4.	The presenter's preparation and organization for today was...	1 2 3 4 5
5.	The contribution of this in-service to answering my questions about technology and teaching was...	1 2 3 4 5
6.	The presenter's knowledge of the in-service content appeared to be...	1 2 3 4 5
7.	The in-service, as far as being interesting and attention-holding was...	1 2 3 4 5
8.	The contribution of this in-service to providing strategies and materials for use in the classroom was...	1 2 3 4 5

Please make additional comments on the morning in-service and/or the effectiveness of the afternoon follow-up at school:_____

_____

_____

_____ **(continue on reverse)**

Mathematics Workshop

Sherwood School In-Service
River East School Division No. 9
October 23-24, 1997
Presenter: Mr. Herb Reynolds

REACTION FORM

Please use the following rating scale when responding to each item: 1=poor; 2=satisfactory; 3=good; 4=very good; 5=excellent.

1. The overall quality of this in-service was... 1 2 3 4 5

2. In general, this leader's presentation was... 1 2 3 4 5

3. The contribution of this in-service to our understanding of the Shapes and Space strand of the new Mathematics curriculum was... 1 2 3 4 5

4. The presenter's preparation and organization for today was... 1 2 3 4 5

5. The contribution of this in-service to answering our specific questions about Math teaching and learning was... 1 2 3 4 5

6. The presenter's knowledge of the in-service content appeared to be... 1 2 3 4 5

7. The in-service, as far as being interesting and attention-holding was... 1 2 3 4 5

8. The contribution of this in-service to providing strategies and materials for use in the classroom was... 1 2 3 4 5

Please make additional comments about the full day in-service and/or the effectiveness of the follow-up planning day at school:_____

_____

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_____ **(continue on reverse)**

Sherwood School - Project Learn

Observation Recording Form - School Touring

Classroom/Area Toured:_____

Date of Observation:_____ **Start Time:**_____ **End Time:**_____

Duration of Observation:_____**minutes**

Observation Process

a) Take notes on date and time of observation.

b) Dictate notes using a micro-cassette so that information will not be lost.

c) Gather visual information by taking photographs.

c) Listen to the tapes and study photographs as quickly as possible after the observation giving time for reflective thought and writing field notes.

d) Type field notes and make two copies, one for reference and one for coding and analysis.

e) Review the notes with co-investigator to ensure that a reasonably vivid and accurate description has been prepared.

f) Note ending time and record duration of observation.

Observational Notes

Sherwood School In-Service
River East School Division No. 9
January 30, 1998
Facilitator: Ms. Sharon Hay

SMALL GROUP DISCUSSION QUESTIONS

The following questions are designed to help you reflect on and evaluate the progress you are making as a school community towards the change ideals articulated in Project Learn. An additional outcome of the conversation will be to set an agenda for the future. As you consider each question, discuss it thoroughly, record the highlights, and then share in the larger group.

1. What progress is being made towards reaching each of the three goals of Project Learn in the school (interdisciplinary curriculum, evaluation and assessment, Friendly Helpers)? What are the key indicators of change in the school (i.e. new curriculum plans, collaborative work)? What evidence can be provided to suggest that these goals are being successfully implemented in the school (i.e. artifacts produced by teachers or students, teacher talk in the staff room, observations, outcome assessments, test results)?

2. What progress has been made towards answering some of your most pressing questions related to Project Learn? As you reflect on your experience and practice, what new questions and issues emerge for you?

3. Reflect on all of the professional development strategies that have been used to help the teachers of Sherwood School bring about change (in-services of various kinds, school planning meetings, steering committees, hosting a student teacher, etc.)? What strategies have been most effective? Why? What is unique and different about the professional development approach being used in Project Learn?

4. Can you identify factors (i.e. altering the physical plan of the school, administrative support for change), other than professional development experiences, that are contributing to positive change in Sherwood School?

5. Can you identify any factors that are hampering change in Sherwood School (i.e. pressure from outside the school to be doing something else, money, teacher resistence to change)? How might these challenges be confronted?

6. Are the goals of Project Learn still relevant for Sherwood School? Are we still committed to these? Have new and more important issues emerged for us which is causing us to shift our attention to other matters?

7. What should we focus on now? How can we answer our most persistent and enduring questions? What kinds of professional development experiences do we still want and need in the near future?

Sherwood School - Project Learn
Interview Recording Form

Name of Interviewee:_____

Subject Data (teaching assignment, years of experience/range and depth, age, steering committee membership, etc.):_____
_____
_____
_____
_____

Date of Interview:_____ **Start Time:**_____ **End Time:**_____

Duration of Interview:_____**minutes**

Interview Process

a) Take notes on subject data, date, time of interview.

b) Audio-record and conduct interview in a semi-structured, open-ended manner with notes taken and meanings checked.

c) Note ending time and record duration of interview.

Questions

1. Reflecting back on the beginnings of Project Learn, can you identify what caused the teachers of Sherwood School to identify the three change ideals related to interdisciplinary curriculum, student evaluation and assessment, and Friendly Helpers programming? Within these parameters set by the group, in what ways were you able to assess your needs and develop an individual professional development plan?

2 In your mind, what progress is being made towards reaching the goals of Project Learn in your classroom? What are the key indicators of change? What evidence can be provided to suggest that these changes are being successfully implemented in your classroom?

3. On January 30, we asked teachers to list what professional development strategies have been used to help the teachers of Sherwood School bring about desired changes? In your opinion, what strategies have been most effective? Why? What is unique about the professional development approach being used in Project Learn?

4. How have your professional development experiences this year influenced your growth as a teacher?

5. Since January 30, have you had any other thoughts on what factors, other than professional development experiences, that might be contributing to positive change in Sherwood School?

6. Can you identify any obstacles that you encountered in your efforts to change your teaching practice? How might these have been combatted?

7. Do you have any other comments to make that might help me to understand Sherwood School teachers abilities to learn and change successfully within the context of Project Learn?

MyFiles:profdev.report

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